

N61165.AR.005253
CNC CHARLESTON
5090.3a

NO FURTHER ACTION (NFA) UNDERGROUND STORAGE TANK (UST) ASSESSMENT
REPORT DATED 27 AUGUST 1998 FOR BUILDING 759 (QUARTERS NH-B HOUSING) CNC
CHARLESTON SC
09/30/1998
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



30 September 1998

2600 Bull Street
Columbia, SC 29201-1708

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Department of the Navy
Southern Division NFEC
P.O. Box 190010
North Charleston, SC 29419-9010
Attn: Mr. Gabriel Magwood

Re: Underground Storage Tank Assessment Report dated 27 August 1998
Building 759 (Quarters "NH B" Housing) (Site Identification # 15405-General File)
Charleston Naval Complex/Charleston Naval Base
Charleston, SC
Charleston County

Dear Mr. Magwood:

The author has completed technical review of the referenced document. As submitted, the report provides a narrative describing closure activities and analytical results of environmental sampling conducted to determine if releases have occurred as a result of operation of the referenced vessel and/or associated piping system. The analytical results provided indicate that concentrations of BTEX and PAH compounds were not detected above established method detection limits in soil grab samples obtained from the UST excavation and/or piping run excavations. In this regard, the employed closure activities and sampling results appear to indicate that no additional endeavors for remedial actions and/or contaminant characterization are warranted for Building 759 at this time.

With consideration to the above comments, the Department has reviewed the referenced environmental data. Based on the information and analytical data submitted, the Department recognizes that the Department of the Navy and Charleston Naval Complex/Charleston Naval Base has adequately addressed the known environmental contamination identified on the property to date in accordance with the approved scope of work. Please note, this statement pertains only to the portion of the site addressed in the referenced report and does not apply to other areas of the site and/or any other potential regulatory violations. Further, the Department retains the right to request further investigation if deemed necessary.

Charleston Naval Complex/Charleston Naval Base

30 September 1998

page 2

Should you have any questions please contact me at (803) 734-5328.

Sincerely,



Paul L. Bristol, Hydrogeologist
Groundwater Quality Section
Bureau of Water



Tom Knight, Manager
Groundwater Quality Section
Bureau of Water

cc: Trident District EQC



DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
P.O. BOX 190010
2155 EAGLE DRIVE
NORTH CHARLESTON, S.C. 29419-9010

Li 9.1.98
Lo 9.30.98

NFA

5090
Code 1849
27 Aug 98

Mr. Paul Bristol
South Carolina Department of Health
And Environmental Control
Groundwater Quality Section
Bureau of Water
2600 Bull Street
Columbia, SC 29201

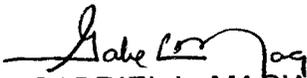
**UST ASSESSMENT REPORTS FOR CHARLESTON NAVAL COMPLEX,
CHARLESTON, SC**

Dear Mr. Bristol:

Enclosed are the Assessment Reports for the closure of Underground Storage Tanks 758, 759, 761 and 762 located at the Charleston Naval Complex, Charleston, SC.

If you have any questions please contact me at (843) 820-7307.

Sincerely,


GABRIEL L. MAGWOOD
Petroleum/UST

Encl:
(1) Assessment Reports

RECEIVED

AUG 31 1998

**Water Monitoring, Assessment &
Protection Division**

Li 9.1.98
Lo 9.30.98

South Carolina Department of Health and Environmental Control (S.C.D.H.E.C.)
Underground Storage Tank (UST) Assessment Report

Submit Completed Form to:

Date Received

State Use Only

UST Regulatory Section
SCDHEC
2600 Bull Street
Columbia, South Carolina 29201
Telephone (803) 734-5331

I OWNERSHIP OF UST(S)

Agency/Owner: Southern Division, Naval Facilities Engineering Command, Caretaker Site Office
Mailing Address: P.O. Box 190010
City: N. Charleston State: SC Zip Code: 29419-9010
Area Code: 843 Telephone Number: 743-9985 Contact Person: Henry N. Shepard II, P. E.

II SITE IDENTIFICATION AND LOCATION

Site I.D. #: Unregulated
Facility Name: Charleston Naval Base Complex, Building 759
Street Address: 801 Avenue "F"
City: North Charleston, 29405-2413 County: Charleston

N/A

III CLOSURE INFORMATION

Closure Started: 6 May 1998 Closure Completed: 6 May 1998
Number of USTs Closed: 1
N/A Consultant SPORTENVDETCNASN UST Removal Contractor

IV. CERTIFICATION (Read and Sign after completing entire submittal)

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents; and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate and complete.
Henry Shepard II, P. E.
Name (Type or Print)
Signature *W. H. Drandy FOR*
RECEIVED
AUG 31 1998

V. UST INFORMATION

- A. Product.....
- B. Capacity.....
- C. Age.....
- D. Construction Material.....
- E. Month/Year of Last Use.....
- F. Depth (ft.) To Base of Tank.....
- G. Spill Prevention Equipment Y/N.....
- H. Overfill Prevention Equipment Y/N.....
- I. Method of Closure Removed/Filled.....
- J. Visible Corrosion or Pitting Y/N.....
- K. Visible Holes Y/N.....

	Tank 1	Tank 2	Tank 3	Tank 4	Tank 5
Fuel oil					
550 gal					
Unk.					
Steel					
3/98					
6' 6"					
N					
N					
R					
Y					
N					

- L. Method of disposal for any USTs removed from the ground (attach disposal manifests)

UST 759 was removed, drained, cut open at both ends, and cleaned with a steam cleaner. It was then cut up for recycling as scrap metal. (See Attachment III.)

- M. Method of disposal for any liquid petroleum, sludges, or waste waters removed from the USTs (attach disposal manifests)

The sludge, waste water, and residual fuel oil from UST 759 were recycled.

- N. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST

UST 759 was covered with a protective coating. The tank was in fair condition. Minor corrosion was present, but no pitting or holes were found.

VI. PIPING INFORMATION

- A. Construction Material.....
- B. Distance from UST to Dispenser.....
- C. Number of Dispensers.....
- D. Type of System P/S.....
- E. Was Piping Removed from the Ground? Y/N....
- F. Visible Corrosion or Pitting Y/N.....
- G. Visible Holes Y/N.....
- H. Age.....

Note 1: UST 759 provided heating fuel oil to building 759.

	Tank 1	Tank 2	Tank 3	Tank 4	Tank 5
Copper & Steel					
10' See note 1					
1 see note 1					
S					
Y					
Y					
N					
Unk.					

- I. If any corrosion, pitting, or holes were observed, describe the location and extent for each line.

The steel fill pipe and the steel ventilation pipe were corroded and pitted throughout their length, but no holes were found in either pipe. The copper supply and return lines were in good condition.

VII. BRIEF SITE DESCRIPTION AND HISTORY

Building 759 is also known as Naval Hospital building NH-"B." It was built in 1942, and served as housing for Naval families until base closure.

VIII. SITE CONDITIONS

Yes No Unk

	Yes	No	Unk
<p>A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate depth and location on the site map.</p>		X	
<p>B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate location on site map and describe the odor (strong, mild, etc.)</p>		X	
<p>C. Was water present in the UST excavation, soil borings, or trenches?</p> <p>If yes, how far below land surface (indicate location and depth)?</p> <p>_____</p>		X	
<p>D. Did contaminated soils remain stockpiled on site after closure?</p> <p>If yes, indicate the stockpile location on the site map.</p> <p>Name of DHEC representative authorizing soil removal:</p> <p>_____</p>		X*	
<p>E. Was a petroleum sheen or free product detected on any excavation or boring waters?</p> <p>If yes, indicate location and thickness.</p>		X**	

* All excavated soil was returned to the tank pit.

** No groundwater was encountered.

IX. SAMPLE INFORMATION

S.C.D.H.E.C. Lab Certification Number 10120

Sample #	Location	Sample Type (Soil/Water)	Depth*	Date/Time of Collection	Collected By	OVA#
SPORT 0679-5	North end of tank	Soil	~6' 6"	5/6/98 0930	R. Cope	14.1 ppm
SPORT 0679-6	South end of tank	Soil	~6' 6"	5/6/98 0935	R. Cope	18.1 ppm
SPORT 0679-7	supply & return pipe run	Soil	18"	5/6/98 1015	R. Cope	4.5 ppm
SPORT 0748-3	supply & return pipe run	Soil	10'	7/8/98 1459	W. Nesbit	14.4 ppm

* = Depth Below the Surrounding Land Surface

Note: Sample SPORT 0679-7 reported zero results with detection levels above the RBSL's due to a dilution factor of 10. The site was resampled by hand augering down to 10 feet below ground surface level. Samples were taken at two foot intervals and OVA (FID) readings were taken from each interval. The samples with the highest OVA reading (or the 10 foot sample if all readings were the same) was sent off for laboratory testing. Sample SPORT 0748-3 was taken at the same location as SPORT 0679-7.

X. SAMPLING METHODOLOGY

Provide a detailed description of the methods used to collect and store (preserve) the samples.

After the removal of UST 759, soil samples were taken. Sampling was performed in accordance with SC DHEC R.61-92 Part 280 and SC DHEC UST Assessment Guidelines.

Sample jars were prepared by the testing laboratory. The grab method was utilized to fill the sample containers leaving as little head space as possible and immediately capped. Samples were extracted at the tank ends and from beneath the piping at the mechanical connections.

The samples were marked, logged, and immediately placed in sample coolers packed with ice to maintain an approximate temperature of 4° C. Tools were thoroughly cleaned and decontaminated with organic-free soap and water after each sample.

The samples remained in the custody of SPORTENVDETHASN until they were transferred to General Engineering Laboratories for analysis as documented in the attached Chain-of-Custody Record.

XI. RECEPTORS

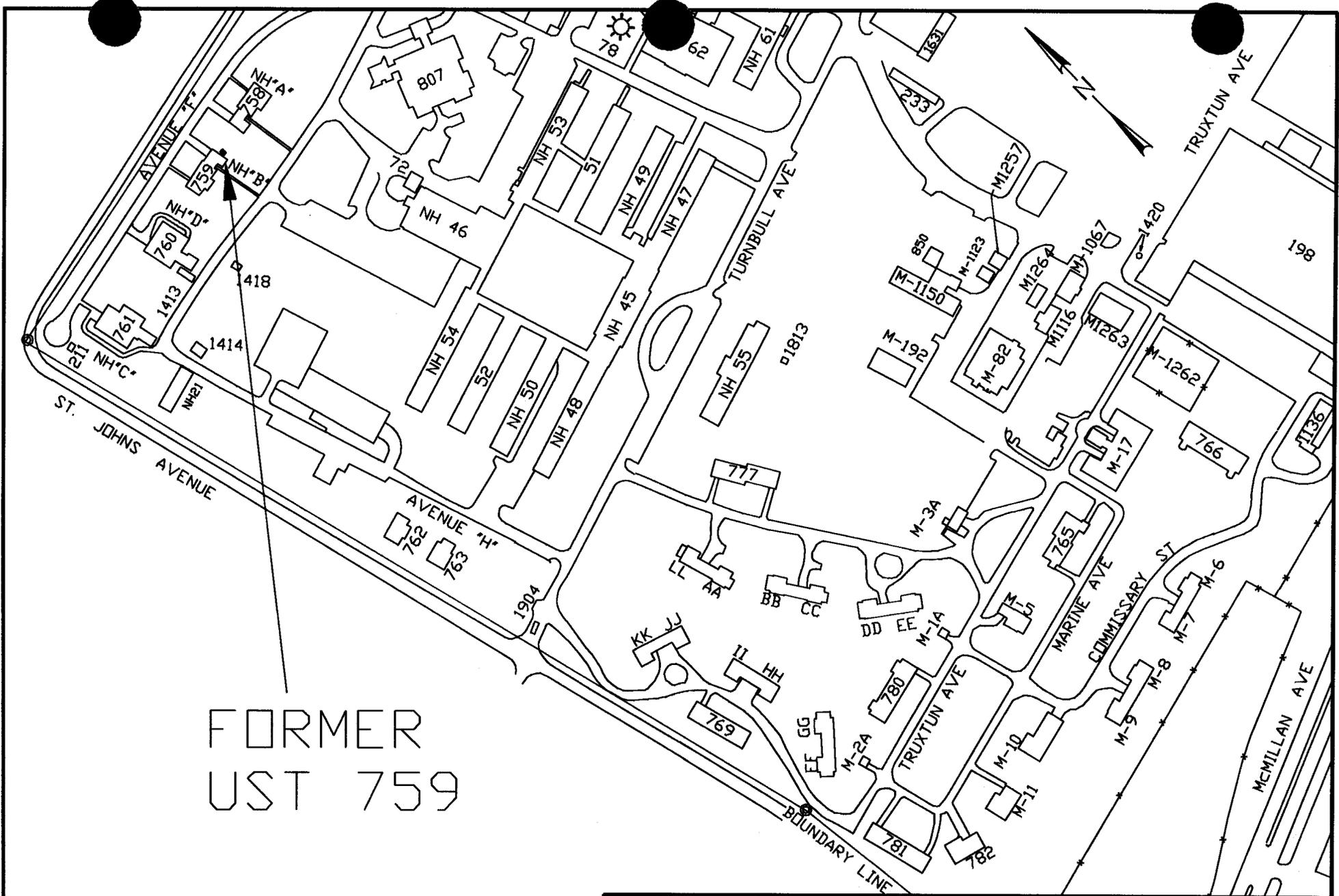
Yes No

<p>A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?</p> <p>If yes, indicate type of receptor, distance, and direction on site map.</p>		X
<p>B. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?</p> <p>If yes, indicate type of well, distance, and direction on site map.</p>		X
<p>C. Are there any underground structures (e.g., basements) located within 100 feet of the UST system?</p> <p>If yes, indicate the type of structure, distance, and direction on site map.</p>		X
<p>D. Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the contamination? [electric, phone line, water]</p> <p>If yes, indicate the type of utility, distance, and direction on the site map.</p>	X	
<p>E. Has contaminated soil been identified at a depth of less than 3 feet below land surface in an area that is not capped by asphalt or concrete?</p> <p>If yes, indicate the area of contaminated soil on the site map.</p>		X

SITE MAP

You must supply a scaled site map. It should include all buildings, road names, utilities, tank and pump island locations, sample locations, extent of excavation, and any other pertinent information.

Site Maps 1 and 2
Photograph 1



FORMER
UST 759

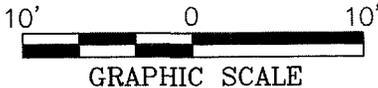
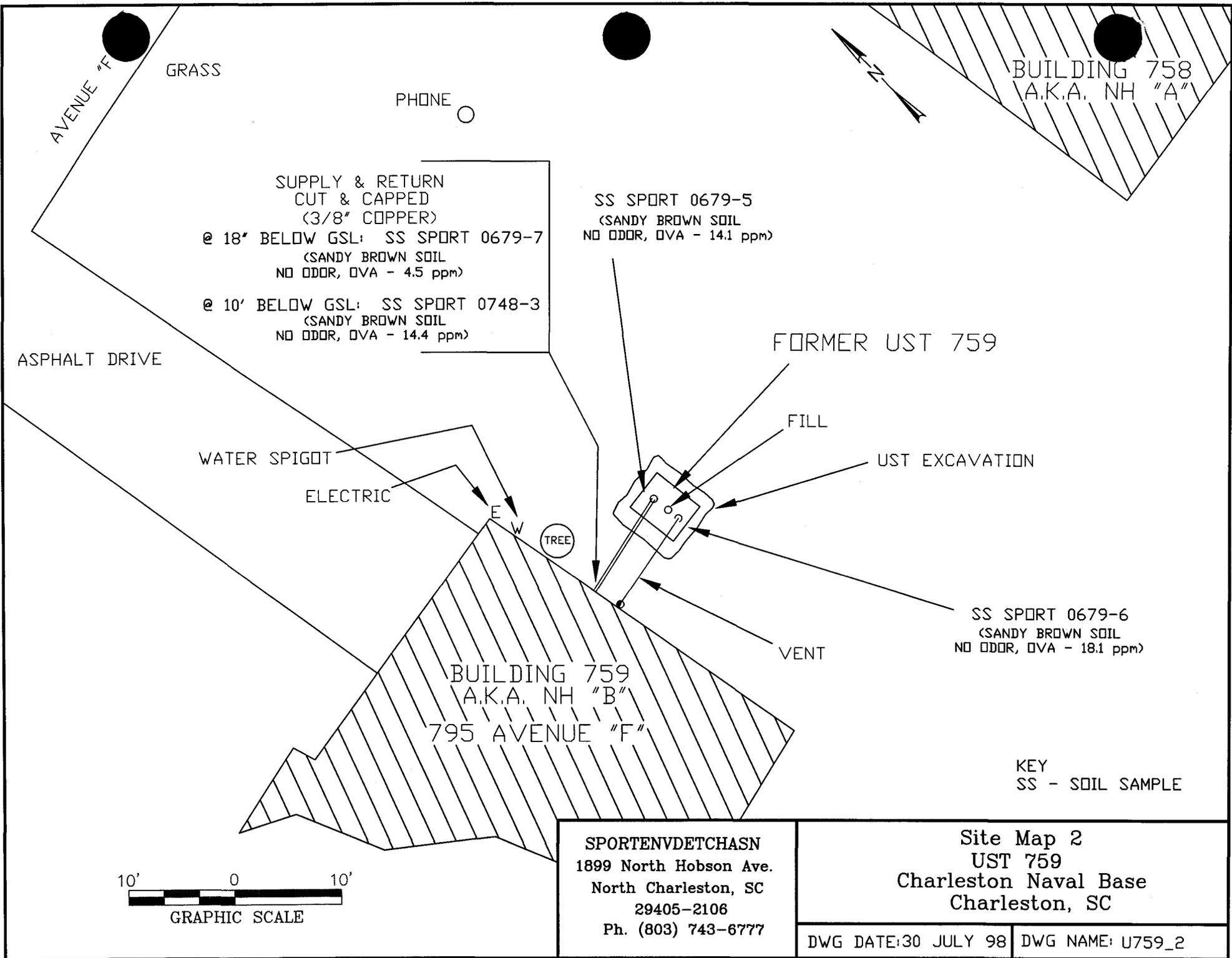


GRAPHIC SCALE

SPORTENVDETHASN
1899 North Hobson Ave.
North Charleston, SC
29405-2106
Ph. (803) 743-8777

Site Map 1
UST 759
Charleston Naval Base
Charleston, SC

DWG DATE: 18 MAY 98 | DWG NAME: U759_1



SPORTENVDETHASN
1899 North Hobson Ave.
North Charleston, SC
29405-2106
Ph. (803) 743-6777

Site Map 2
UST 759
Charleston Naval Base
Charleston, SC

DWG DATE: 30 JULY 98 | DWG NAME: U759_2

UST 759



Photo 1: UST 759 being hoisted from the excavation.

Attachment II
ANALYTICAL RESULTS

You must submit the laboratory report and chain-of-custody form for the samples. These samples must be analyzed by a South Carolina certified laboratory.

Certified Analytical Results
Chain-of-Custody



GENERAL ENGINEERING LABORATORIES

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Laboratory Certifications

STATE	GEL	EPI
FL	EB7156/87294	EB7472/87458
NC	231	
SC	10120	10582
TN	02934	02934

758, 759, 761, 762

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: May 15, 1998

Page 1 of 2

Sample ID : SPORT0679-1
 Lab ID : 9805214-01
 Matrix : GroundH2O
 Date Collected : 05/05/98
 Date Received : 05/07/98
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/l	1.0	JEB	05/13/98	0951	122074	1
Ethylbenzene	U	0.00	1.00	2.00	ug/l	1.0					
Toluene	U	0.00	1.00	2.00	ug/l	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/l	1.0					
Naphthalene	U	0.00	1.00	2.00	ug/l	1.0					

Surrogate Recovery	Test	Percent %	Acceptable Limits
Bromofluorobenzene	BTEX-8260	95.3	(60.2 - 139.)
Dibromofluoromethane	BTEX-8260	90.5	(70.6 - 152.)
Toluene-d8	BTEX-8260	94.5	(68.4 - 135.)
Bromofluorobenzene	NAP-8260	95.3	(60.2 - 139.)
Dibromofluoromethane	NAP-8260	90.5	(70.6 - 152.)
Toluene-d8	NAP-8260	94.5	(68.4 - 135.)

M = Method	Method-Description
M 1	EPA 8260

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9805214-01

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Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/87458
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: May 15, 1998

Page 2 of 2

Sample ID : SPORT0679-1

M = Method

Method-Description

Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Karen Blakeney at (803) 769-7386.

Karen Blakeney

 Reviewed By

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9805214-01



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Laboratory Certifications

STATE	GEL	EPI
FL	ER7156/87294	EE7472/87458
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers
 Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: May 15, 1998

Page 1 of 2

Sample ID : SPORT0679-5
 Lab ID : 9805214-05
 Matrix : Soil
 Date Collected : 05/06/98
 Date Received : 05/07/98
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/kg	1.0	TCL	05/12/98	1804	122015	1
Ethylbenzene	U	0.00	1.00	2.00	ug/kg	1.0					
Toluene	U	0.00	1.00	2.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/kg	1.0					
Naphthalene	U	0.00	1.00	2.00	ug/kg	1.0					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	166	332	ug/kg	1.0	WAM	05/11/98	1953	121874	2
Acenaphthylene	U	0.00	166	332	ug/kg	1.0					
Anthracene	U	0.00	166	332	ug/kg	1.0					
Benzo(a)anthracene	U	0.00	166	332	ug/kg	1.0					
Benzo(a)pyrene	U	0.00	166	332	ug/kg	1.0					
Benzo(b)fluoranthene	U	0.00	166	332	ug/kg	1.0					
Benzo(ghi)perylene	U	0.00	166	332	ug/kg	1.0					
Benzo(k)fluoranthene	U	0.00	166	332	ug/kg	1.0					
Chrysene	U	0.00	166	332	ug/kg	1.0					
Dibenzo(a,h)anthracene	U	0.00	166	332	ug/kg	1.0					
Fluoranthene	U	0.00	166	332	ug/kg	1.0					
Fluorene	U	0.00	166	332	ug/kg	1.0					
Indeno(1,2,3-c,d)pyrene	U	0.00	166	332	ug/kg	1.0					
Naphthalene	U	0.00	166	332	ug/kg	1.0					
Phenanthrene	U	0.00	166	332	ug/kg	1.0					
Pyrene	U	0.00	166	332	ug/kg	1.0					

The following prep procedures were performed:
 GC/MS Base/Neutral Compounds

RDH 05/11/98 1525 121874 3

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9805214-05

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Laboratory Certifications

STATE	GEL	EPI
FL	ES7156/87294	ES7472/87458
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: May 15, 1998

Page 2 of 2

Sample ID : SPORT0679-5

Surrogate Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	70.8	(30.0 - 115.)
Nitrobenzene-d5	M610	63.0	(23.0 - 120.)
p-Terphenyl-d14	M610	70.2	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	93.2	(53.5 - 154.)
Dibromofluoromethane	BTEX-8260	89.2	(63.4 - 136.)
Toluene-d8	BTEX-8260	89.2	(72.1 - 137.)
Bromofluorobenzene	NAP-8260	93.2	(53.5 - 154.)
Dibromofluoromethane	NAP-8260	89.2	(63.4 - 136.)
Toluene-d8	NAP-8260	89.2	(72.1 - 137.)

M = Method

Method-Description

M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3550

Notes:

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Reviewed By

Karen Blakeney

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Laboratory Certifications

STATE	GEL	EPT
FL	E87156/87294	E87472/87455
NC	235	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: May 15, 1998

Page 1 of 2

Sample ID : SPORT0679-6
 Lab ID : 9805214-06
 Matrix : Soil
 Date Collected : 05/06/98
 Date Received : 05/07/98
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/kg	1.0	TCL	05/12/98	1834	122015	1
Ethylbenzene	U	0.00	1.00	2.00	ug/kg	1.0					
Toluene	U	0.00	1.00	2.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/kg	1.0					
Naphthalene	U	0.00	1.00	2.00	ug/kg	1.0					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	165	330	ug/kg	1.0	WAM	05/11/98	2024	121874	2
Accnaphthylene	U	0.00	165	330	ug/kg	1.0					
Anthracene	U	0.00	165	330	ug/kg	1.0					
Benzo(a)anthracene	U	0.00	165	330	ug/kg	1.0					
Benzo(a)pyrene	U	0.00	165	330	ug/kg	1.0					
Benzo(b)fluoranthene	U	0.00	165	330	ug/kg	1.0					
Benzo(ghi)perylene	U	0.00	165	330	ug/kg	1.0					
Benzo(k)fluoranthene	U	0.00	165	330	ug/kg	1.0					
Chrysene	U	0.00	165	330	ug/kg	1.0					
Dibenzo(a,h)anthracene	U	0.00	165	330	ug/kg	1.0					
Fluoranthene	U	0.00	165	330	ug/kg	1.0					
Fluorene	U	0.00	165	330	ug/kg	1.0					
Indeno(1,2,3-c,d)pyrene	U	0.00	165	330	ug/kg	1.0					
Naphthalene	U	0.00	165	330	ug/kg	1.0					
Phenanthrene	U	0.00	165	330	ug/kg	1.0					
Pyrene	U	0.00	165	330	ug/kg	1.0					

The following prep procedures were performed:
 GC/MS Base/Neutral Compounds

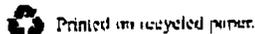
RDH 05/11/98 1525 121874 3

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Laboratory Certifications

STATE	GEL	EPI
FL	EE7156/87294	EE7472/87458
NC	235	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: May 15, 1998

Page 2 of 2

Sample ID : SPORT0679-6

Surrogate Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	72.3	(30.0 - 115.)
Nitrobenzene-d5	M610	67.3	(23.0 - 120.)
p-Terphenyl-d14	M610	77.1	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	89.2	(53.5 - 154.)
Dibromofluoromethane	BTEX-8260	90.8	(63.4 - 136.)
Toluene-d8	BTEX-8260	89.4	(72.1 - 137.)
Bromofluorobenzene	NAP-8260	89.2	(53.5 - 154.)
Dibromofluoromethane	NAP-8260	90.8	(63.4 - 136.)
Toluene-d8	NAP-8260	89.4	(72.1 - 137.)

M = Method	Method-Description
M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3550

Notes:

The qualifiers in this report are defined as follows:

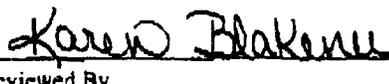
ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Karen Blakeney at (803) 769-7386.


 Reviewed By

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9805214-06





GENERAL ENGINEERING LABORATORIES

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Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/87458
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers
 Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: May 15, 1998

Page 1 of 3

Sample ID : SPORT0679-7
 Lab ID : 9805214-07
 Matrix : Soil
 Date Collected : 05/06/98
 Date Received : 05/07/98
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/kg	1.0	TCL	05/12/98	1905	122015	1
Ethylbenzene	U	0.00	1.00	2.00	ug/kg	1.0					
Toluene	U	0.00	1.00	2.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/kg	1.0					
Naphthalene	U	0.00	1.00	2.00	ug/kg	1.0					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	1650	3300	ug/kg	10.	WAM	05/11/98	2055	121874	2
Acenaphthylene	U	0.00	1650	3300	ug/kg	10.					
Anthracene	U	0.00	1650	3300	ug/kg	10.					
Benzo(a)anthracene	U	0.00	1650	3300	ug/kg	10.					
Benzo(a)pyrene	U	0.00	1650	3300	ug/kg	10.					
Benzo(b)fluoranthene	U	0.00	1650	3300	ug/kg	10.					
Benzo(ghi)perylene	U	0.00	1650	3300	ug/kg	10.					
Benzo(k)fluoranthene	U	0.00	1650	3300	ug/kg	10.					
Chrysene	U	0.00	1650	3300	ug/kg	10.					
Dibenzo(a,h)anthracene	U	0.00	1650	3300	ug/kg	10.					
Fluoranthene	U	0.00	1650	3300	ug/kg	10.					
Fluorene	U	0.00	1650	3300	ug/kg	10.					
Indeno(1,2,3-c,d)pyrene	U	0.00	1650	3300	ug/kg	10.					
Naphthalene	U	0.00	1650	3300	ug/kg	10.					
Phenanthrene	U	0.00	1650	3300	ug/kg	10.					
Pyrene	U	0.00	1650	3300	ug/kg	10.					

The following prep procedures were performed:
 GC/MS Base/Neutral Compounds

RDH 05/11/98 1525 121874 3

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FL	E87156/87294	E87472/87458
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: May 15, 1998

Page 2 of 3

Sample ID : SPORT0679-7

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
-----------	-----------	--------	----	----	-------	----	---------	------	------	-------	---

Comments:

A dilution was required for Extractable Organics due to matrix interference. As a result, the detection limits are elevated.

Surrogate Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	0.00*	(30.0 - 115.)
Nitrobenzene-d5	M610	0.00*	(23.0 - 120.)
p-Terphenyl-d14	M610	103.	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	102.	(53.5 - 154.)
Dibromofluoromethane	BTEX-8260	90.2	(63.4 - 136.)
Toluene-d8	BTEX-8260	95.4	(72.1 - 137.)
Bromofluorobenzene	NAP-8260	102.	(53.5 - 154.)
Dibromofluoromethane	NAP-8260	90.2	(63.4 - 136.)
Toluene-d8	NAP-8260	95.4	(72.1 - 137.)

M = Method	Method-Description
M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3550

Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

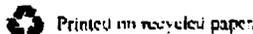
U indicates that the analyte was not detected at a concentration greater than the detection limit.

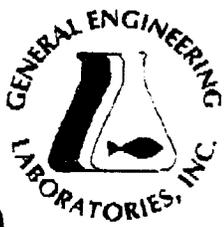
* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

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Laboratory Certifications

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FL	ES7156/87294	ES7472/57458
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: May 15, 1998

Page 3 of 3

Sample ID : SPORT0679-7

M = Method

Method-Description

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Karen Blakeney at (803) 769-7386.

Karen Blakeney

Reviewed By

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NR 200197
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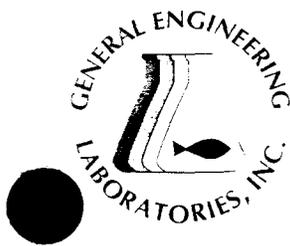
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 2040 Savage Road
 Charleston, South Carolina 29407
 P.O. Box 30712
 Charleston, South Carolina 29417
 (803)556-8171

CHAIN OF CUSTODY RECORD

9805214-

Client Name/Facility Name		SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods										Use F or P in the boxes to indicate whether sample was filtered and/or preserved									
SPORTENV DET CHASN		pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type	BTEX/NAIP	PAH	Remarks		
Collected by/Company	SPOR TENV DET CHASN																				
SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS											Remarks			
-01	SPORT 0679-1	5/5/98	0840				1											X	Water Trip Blank	.1	
-02	SPORT 0679-2	5/5/98	1440	X	X		2											X	X	758 EAST	.2
-03	SPORT 0679-3	5/5/98	1450	X	X		2											X	X	758 West	.2
-04	SPORT 0679-4	5/6/98	0900	X	X		2											X	X	758 MPG	.2
-05	SPORT 0679-5	5/6/98	0930	X	X		2											X	X	759 North	.2
-06	SPORT 0679-6	5/6/98	0935	X	X		2											X	X	759 South	.2
-07	SPORT 0679-7	5/6/98	1015	X	X		2											X	X	759 MPG	.2
-08	SPORT 0679-8	5/6/98	1505	X	X		2											X	X	761 NORTH	.2
-09	SPORT 0679-9	5/6/98	1510	X	X		2											X	X	761 SOUTH	.2
-10	SPORT 0679-10	5/7/98	1010	X	X		2											X	X	762 WEST	.2
-11	SPORT 0679-11	5/7/98	1015	X	X		2											X	X	762 EAST	.2
-12	SPORT 0679-12	5/7/98	1135	X	X		2											X	X	762 MPG	.2
-13	SPORT 0679-13	5/7/98	1320	X	X		2											X	X	761 MPG	.2
Relinquished by:		Date:	Time:	Received by:		Relinquished by:		Date:	Time:	Received by:											
[Signature]		5/7/98	1340	[Signature]		[Signature]		5/7/98	1451	[Signature]											
Relinquished by:		Date:	Time:	Received by lab by:		Date:	Time:	Remarks:													
[Signature]		5/7/98	1510	Karen Blakemey		5/7/98	1510														

White = sample collector Yellow = file Pink = with report



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Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/8
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: July 20, 1998

Page 1 of 2

Sample ID : SPORT0748-1
 Lab ID : 9807256-01
 Matrix : Soil
 Date Collected : 07/08/98
 Date Received : 07/09/98
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
-----------	-----------	--------	----	----	-------	----	---------	------	------	-------	---

Volatile Organics

BTEX + NAPTH. - 5 items

Benzene	U	0.00	0.241	1.00	ug/kg	1.0	TCL	07/14/98	1249	126012	
Ethylbenzene	U	0.00	0.221	1.00	ug/kg	1.0					
Naphthalene	U	0.00	0.404	1.00	ug/kg	1.0					
Toluene	U	0.00	0.212	1.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	0.596	2.00	ug/kg	1.0					

The following prep procedures were performed:

GC/MS Volatiles (8260 High Level)

TCL 07/13/98 1000 126012 2

Surrogate Recovery	Test	Percent%	Acceptable Limits
Bromofluorobenzene	BTEX+NAP-8260B	82.2	(53.5 - 154.)
Dibromofluoromethane	BTEX+NAP-8260B	83.8	(63.4 - 136.)
Toluene-d8	BTEX+NAP-8260B	79.5	(72.1 - 137.)

M = Method

Method-Description

M 1	SW846 8260B
M 2	EPA 5035

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Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/8
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: July 20, 1998

Page 2 of 2

Sample ID : SPORT0748-1

M = Method

Method-Description

Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

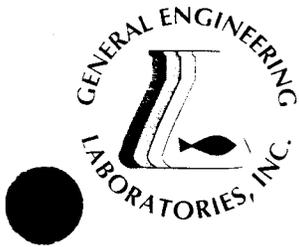
* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Karen Blakeney at (803) 769-7386.

Karen Blakeney

Reviewed By





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Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/8747
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: July 20, 1998

Page 1 of 2

Sample ID : SPORT0748-3
 Lab ID : 9807256-03
 Matrix : Soil
 Date Collected : 07/08/98
 Date Received : 07/09/98
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX + NAPTH. - 5 items</i>											
Benzene	U	0.00	0.303	1.21	ug/kg	1.0	TCL	07/14/98	1350	126012	1
Ethylbenzene	U	0.00	0.278	1.21	ug/kg	1.0					
Naphthalene	U	0.00	0.508	1.21	ug/kg	1.0					
Toluene	U	0.00	0.266	1.21	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	0.750	2.42	ug/kg	1.0					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	86.6	333	ug/kg	1.0	RLC	07/13/98	1231	125761	2
Acenaphthylene	U	0.00	93.2	333	ug/kg	1.0					
Anthracene	U	0.00	63.3	333	ug/kg	1.0					
Benzo(a)anthracene	U	0.00	59.9	333	ug/kg	1.0					
Benzo(a)pyrene	U	0.00	56.6	333	ug/kg	1.0					
Benzo(b)fluoranthene	U	0.00	103	333	ug/kg	1.0					
Benzo(ghi)perylene	U	0.00	59.9	333	ug/kg	1.0					
Benzo(k)fluoranthene	U	0.00	86.6	333	ug/kg	1.0					
Chrysene	U	0.00	46.6	333	ug/kg	1.0					
Dibenzo(a,h)anthracene	U	0.00	56.6	333	ug/kg	1.0					
Fluoranthene	U	0.00	79.9	333	ug/kg	1.0					
Fluorene	U	0.00	79.9	333	ug/kg	1.0					
Indeno(1,2,3-c,d)pyrene	U	0.00	140	333	ug/kg	1.0					
Naphthalene	U	0.00	76.6	333	ug/kg	1.0					
Phenanthrene	U	0.00	76.6	333	ug/kg	1.0					
Pyrene	U	0.00	63.3	333	ug/kg	1.0					

The following prep procedures were performed:
 GC/MS Volatiles (8260 High Level)

TCL 07/13/98 1000 126012 3

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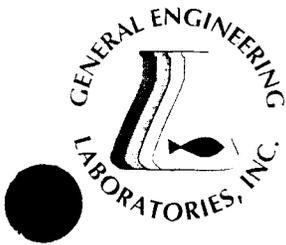
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STATE	GEL	EPI
FL	E87156/87294	E87472/874
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00197

Report Date: July 20, 1998

Page 2 of 2

Sample ID : SPORT0748-3

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
GC/MS Base/Neutral Compounds							CPU	07/10/98	1535	125761	4

Surrogate Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	62.6	(30.0 - 115.)
Nitrobenzene-d5	M610	64.2	(23.0 - 120.)
p-Terphenyl-d14	M610	60.2	(37.3 - 128.)
Bromofluorobenzene	BTEX+NAP-8260B	109.	(53.5 - 154.)
Dibromofluoromethane	BTEX+NAP-8260B	107.	(63.4 - 136.)
Toluene-d8	BTEX+NAP-8260B	102.	(72.1 - 137.)

M = Method	Method-Description
M 1	SW846 8260B
M 2	EPA 8270
M 3	EPA 5035
M 4	EPA 3550

Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Karen Blakeney at (803) 769-7386.

Reviewed By Karen Blakeney

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9807256-03

NPUR 00197

980256-

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 2040 Savage Road
 Charleston, South Carolina 29407
 P.O. Box 30712
 Charleston, South Carolina 29417
 (803) 556-8171

CHAIN OF CUSTODY RECORD

Page 1 of 1

NOTE: SEE ATTACHED SHEET FOR LIMITS.

Client Name/Facility Name		Collected by/Company		# OF CONTAINERS	SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods															Remarks			
SPORT ENN DET CHASN		SPORT ENN DET CHASN			pH. conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type		BTEX	PAH	
SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB																	
-01	SPORT 748-1	7/8/98	0843																				UST SOIL TEST BLANK .1
-02	SPORT 748-2	7/8/98	1148																				UST 758 PPG .2
-03	SPORT 748-3	7/8/98	1459																				UST 759 PPG .2
-04	SPORT 748-4	7/9/98	0957																				UST 762 PPG .2
-05	SPORT 748-5	7/9/98	1110																				UST 761 PPG .2

Relinquished by: William J. Blakeney Date: 7/9/98 Time: 1203 Received by: W.K. Hiers, Jr. Date: 7/9/98 Time: 1419 Received by: Stephanie Berkester

Relinquished by: Stephanie Berkester Date: 7/9/98 Time: 2:40 Received by lab by: Karen Blakeney Date: 7/9/98 Time: 1440 Remarks:

White = sample collector Yellow = file Pink = with report

Attachment III

Certificate of Disposal (tank)

UST Certificate of Disposal

CONTRACTOR

Supervisor of Shipbuilding Conversion and Repair
Portsmouth, VA
Environmental Detachment Charleston
1899 North Hobson Avenue
North Charleston 29405-2106

Telephone (843) 743-6482

TANK ID & LOCATION

UST 759; Building 759, 801 Avenue "F", North Charleston SC

DISPOSAL LOCATION

Bldg. 1601 Tank Cleaning
& Disposal Area
Charleston Naval Complex

TYPE OF TANK

Fuel oil

SIZE (GAL)

550 gal

CLEANING/DISPOSAL METHOD

The tank was cut open on both ends, cleaned with a steam cleaner, and disposed of as recyclable scrap metal.

DISPOSAL CERTIFICATION

I certify that the above tank has been properly cleaned and disposed of as recyclable scrap metal.


Sidney C. Ladson

1 06/11/98
(Date)